

Notice of Allowability

Application No.

09/787,301

Applicant(s)

OLSVIK, OLA

Examiner

Jonas N. Strickland

Art Unit

1754

-- **Th MAILING DATE of this communication appears on the cover sheet with the corresponding address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the claims filed on 12/27/04.
2. ☒ The allowed claim(s) is/are claims 21-24, 28-30, 32-34, and 36-40.
3. ☒ The drawings filed on 16 March 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

1. Claims 21-24, 28-30, 32-34, and 36-40 are allowed.
2. The following is an examiner's statement of reasons for allowance: The instantly claimed invention is allowable over the cited prior art, because the cited prior art fails to disclose a method for preparing a carbon dioxide rich gas stream and a hydrogen-rich gas stream, which comprises: feeding natural gas and water into a reforming reactor to form a gas mixture, subjecting the gas mixture to a one-step reforming reaction under supercritical heat and pressure conditions for water to form a reformed gas mixture; and separating the reformed gas mixture into a hydrogen-rich gas stream and a carbon dioxide rich gas stream, wherein the separated carbon-dioxide rich gas stream has a pressure within a range from 20 to 200 bar.

Pagani discloses a steam reforming of methane, which reacts with steam on a special catalyst (p. 1, lines 1-3). Pagani continues to disclose wherein the reforming process occurs in a range from 50 to 250 bar (p. 3, lines 9-14). Pagani continues to disclose wherein the temperature in the reforming reactor is at 550°C (p. 3, lines 28-31). However, Pagani does not disclose separating a carbon dioxide rich gas stream and a hydrogen rich gas stream, wherein the separated carbon-dioxide rich gas stream has a pressure within a range from 20 to 200 bar..

JP-05295374 A teaches reforming methane with steam to produce hydrogen and carbon dioxide and wherein hydrogen is separated and carbon dioxide is separated. However, JP' 374 does not teach wherein the separated carbon-dioxide rich gas stream has a pressure within a range from 20 to 200 bar, as well as subjecting the gas mixture

Art Unit: 1754

to a one-step reforming reaction under supercritical heat and pressure conditions for water to form a reformed gas mixture.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 571-272-1359. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 09/787,301

Page 4

Art Unit: 1754



Jonas N. Strickland
January 18, 2005



STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700